Amendments to the Claims

1. – 17. (canceled)

1
~~18.~~ (currently amended) In a computing environment, a method of facilitating the debugging of mixed-language script that interacts with features of a host through a programming interface, the method comprising:

providing a debugging environment for debugging mixed-language script, the mixed-language script interacting with features of a host through a programming interface exposed by the host, the mixed-language script including a first script portion written in a first language and a second script portion written in a second language;

recognizing a debuggable entity created from the mixed-language script and context information; and

based upon debug activities for the debuggable entity, intervening in interaction between the mixed-language script and the features of the host, wherein the debugging environment coordinates implementation of a first debug activity according to the first language, and wherein the debugging environment coordinates implementation of a second debug activity according to the second language.

2
~~19.~~ (previously presented) A computer readable medium storing instructions for causing a computer programmed thereby to perform the method of claim ~~18~~ 1.

3 1
~~20.~~ (previously presented) The method of claim ~~18~~ wherein the debug activities include evaluating an expression.

4 1
~~21.~~ (previously presented) The method of claim ~~18~~ wherein the debug activities include retrieving stack frame information.

5 1
~~22.~~ (previously presented) The method of claim ~~18~~ wherein the debug activities include browsing a structured object.

6 1
~~23.~~ (previously presented) The method of claim ~~18~~ wherein the debug activities include setting a breakpoint in the mixed-language script.

7 1
~~24.~~ (previously presented) The method of claim ~~18~~ wherein the host is a web browser, and wherein the mixed-language script further interacts with features of a remote host.

8 1
~~25.~~ (previously presented) The method of claim ~~18~~ wherein language-independent descriptions specify the debug activities.

9
~~26.~~ (previously presented) In a computing environment, a system for debugging mixed-language script that interacts with features of a host through a programming interface, the system comprising:

a debuggable entity created from mixed-language script and context information, the mixed-language script for interacting with features of a host through a programming interface exposed by the host, the mixed-language script including a first script portion written in a first language and a second script portion written in a second language; and

a debugging environment for debugging the mixed-language script by intervening in interaction between the mixed-language script and the features of the host, the debugging based upon debug activities for the debuggable entity, wherein the debugging environment coordinates implementation of a first debug activity according to the first language in the debugging, and wherein the debugging environment coordinates implementation of a second debug activity according to the second language in the debugging.

10
~~27.~~ (currently amended) In a distributed computing environment, a method of facilitating the debugging of mixed-language script that interacts with features of a web browser and with features of a remote host, the method comprising:

providing a debugging environment for debugging mixed-language script that interacts with features of a web browser and with features of a remote host, the mixed-language script including a first script portion written in a first language and a second script portion written in a second language;

recognizing a debuggable entity created from the mixed-language script and context information; and

based upon debug activities for the debuggable entity, intervening in interaction between the mixed-language script, the features of the web browser, and the features of the remote host, wherein the debugging environment coordinates implementation of a first debug activity according to the first language, and wherein the active debugging environment coordinates implementation of a second debug activity according to the second language.

11
~~28.~~ (previously presented) A computer readable medium storing instructions for causing a computer programmed thereby to perform the method of claim 10 ~~27~~.

12
~~29.~~ (previously presented) The method of claim 10 ~~27~~ wherein language-independent descriptions specify the debug activities.

13
~~30.~~ (previously presented) The method of claim 10 ~~27~~ wherein the debug activities include evaluating an expression, retrieving stack frame information, browsing a structured object, and setting a breakpoint in the mixed-language script.

14
~~31.~~ (currently amended) In a computing environment, a system for debugging mixed-language script, the system comprising:

a language-independent host for hosting mixed-language script that interacts with features of the host, the mixed-language script including a first script portion written in a first language and a second script portion written in a second language;

plural host-independent language engines, each language engine for handling language-dependent execution and debugging implementation according to a language present in the mixed-language script; and

a language-independent, host-independent debugging environment, wherein the debugging environment facilitates debugging of the mixed-language script in a language-independent, host-independent manner.

15
~~32.~~ (previously presented) The system of claim 14 wherein the debugging environment coordinates debugging of a virtual application based upon the mixed-language script and context information, and wherein the debugging environment maintains a catalog of language components in the virtual application.

16
~~33.~~ (previously presented) The system of claim 14 wherein the plural language engines include a first language engine for an interpreted language and a second language engine for a compiled language.

17
~~34.~~ (previously presented) The system of claim 14 wherein each language engine handles language-dependent debugging for the language of the language engine.

18
~~35.~~ (previously presented) The system of claim 14 further comprising:

a language-independent, host-independent debugging user interface for displaying debugging information for the mixed-language script as a virtual application.

19
~~36.~~ (previously presented) The system of claim 14 wherein the language-independent host is a web browser.

20
~~37.~~ (currently amended) A computer readable medium having stored thereon instructions, the instructions for causing a computer programmed thereby to perform a method of facilitating debugging of mixed-language script in a language-independent debugging environment, the method comprising:

receiving a language-independent description of a debugging activity related to mixed-language script that interacts with features of a host, the mixed-language script including a first script portion written in a first language and a second script portion written in a second language; and

coordinating implementation of the debugging activity through a language engine that handles language-dependent execution and debugging for the debugging activity.

21
~~38.~~ (previously presented) The computer readable medium of claim ~~37~~ 20 wherein the method further comprises:

in a user interface, presenting results from the language engine in a language-independent manner.

22
~~39.~~ (previously presented) The computer readable medium of claim ~~37~~ 20 wherein the method further comprises:

in a user interface, presenting a virtual application for debugging by a user.

23
~~40.~~ (previously presented) The computer readable medium of claim ~~37~~ 20 wherein the debugging activity comprises evaluating an expression.

24
~~41.~~ (previously presented) The computer readable medium of claim ~~37~~ 20 wherein the debugging activity comprises retrieving stack frame information.

25
~~42.~~ (previously presented) The computer readable medium of claim ~~37~~ 20 wherein the debugging activity comprises browsing a structured object.

26
~~43.~~ (previously presented) The computer readable medium of claim ~~37~~ 20 wherein the debugging activity comprises setting a breakpoint in the mixed-language script.

27
~~44.~~ (previously presented) The computer readable medium of claim ~~37~~ 20 wherein the host is a web browser, and wherein the mixed-language script also interacts with features of a remote host.

28
~~45.~~ (previously presented) The computer readable medium of claim ~~37~~ 20 wherein the mixed-language script interacts with features of the host through a programming interface exposed by the host.

29
~~46.~~ (previously presented) The computer readable medium of claim 20 wherein language-independent description is received through a language-independent, host-independent debugging user interface.

30
~~47.~~ (previously presented) The computer readable medium of claim 29 wherein the language-independent, host-independent debugging user interface displays debugging information for the mixed-language script as a virtual application.

31
~~48.~~ (previously presented) In a computing environment, a method of aggregating stack frames from language engines for different languages, the method comprising:

requesting a first language engine to enumerate first contents of a first stack frame, the first language engine supporting language-dependent implementation according to a first language, the first contents including first language-dependent stack frame information;

requesting a second language engine to enumerate second contents of a second stack frame, the second language engine supporting language-dependent implementation according to a second language, the second contents including second language-dependent stack frame information; and

aggregating the first contents and the second contents.

32
~~49.~~ (previously presented) The method of claim 31 wherein the first and second language engines return language-dependent stack frame information in a language-independent manner.

33
~~50.~~ (previously presented) A computer readable medium storing instructions for causing a computer programmed thereby to perform the method of claim 31.